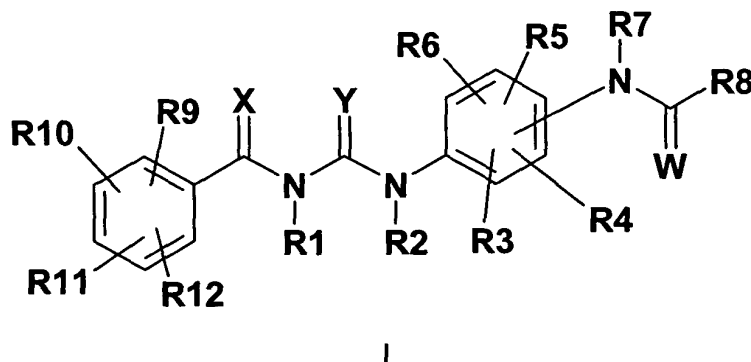


What is claimed is:

1. A compound of the formula I,



in which

W, X, Y are, independently of one another, O or S;

R9, R10, R11, R12 are, independently of one another, H, F, Cl, Br, OH, CF₃, NO₂, CN, OCF₃, O-(C₁-C₆)-alkyl, O-(C₂-C₆)-alkenyl, O-(C₂-C₆)-alkynyl, O-SO₂-(C₁-C₄)-alkyl, O-SO₂-phenyl, where the phenyl ring may be substituted up to twice by F, Cl, Br, CN, OR₁₃, R₁₃, CF₃, OCF₃, COOR₁₃ or CON(R₁₄)(R₁₅), S-(C₁-C₆)-alkyl, S-(C₂-C₆)-alkenyl, S-(C₂-C₆)-alkynyl, SO-(C₁-C₆)-alkyl, SO₂-(C₁-C₆)-alkyl, SO₂-NH₂, (C₁-C₆)-alkyl, (C₂-C₆)-alkenyl, (C₂-C₆)-alkynyl, (C₃-C₇)-cycloalkyl, (C₃-C₇)-cycloalkyl-(C₁-C₄)-alkyl, -COOR₁₃, (C₁-C₆)-alkylene-COOR₁₃, CON(R₁₄)(R₁₅), -N(R₁₄)(R₁₅), (C₁-C₆)-alkylene-N(R₁₄)(R₁₅), NH-COR₁₃, NH-CO-phenyl, or NH-SO₂-phenyl or phenyl, where the phenyl ring may be substituted up to twice by F, Cl, Br, CN, OR₁₃, R₁₃, CF₃, OCF₃, COOR₁₃ or CON(R₁₄)(R₁₅);

R₁₃ is H, (C₁-C₆)-alkyl, (C₂-C₆)-alkenyl, (C₂-C₆)-alkynyl, (C₃-C₇)-cycloalkyl or (C₃-C₇)-cycloalkyl-(C₁-C₄)-alkyl;

R₁, R₂ are, independently of one another, H, (C₁-C₆)-alkyl, where alkyl may be substituted by OH, O-(C₁-C₄)-alkyl, N(R₁₄)(R₁₅), O-(C₁-C₆)-alkyl, O-(C₂-C₆)-alkenyl, O-(C₂-C₆)-alkynyl, CO-(C₁-C₆)-alkyl, CO-(C₂-C₆)-

alkenyl, CO-(C₂-C₆)-alkynyl, COOR₁₃ or -COOR₁₃, (C₁-C₆)-alkylene-COOR₁₃;

R₃, R₄, R₅, R₆ are, independently of one another, H, F, Cl, Br, OH, CF₃, NO₂, CN, OCF₃, (C₁-C₆)-alkyl, (C₂-C₆)-alkenyl, (C₂-C₆)-alkynyl, O-(C₁-C₁₀)-alkyl, O-(C₂-C₁₀)-alkenyl, O-(C₂-C₁₀)-alkynyl, S-(C₁-C₆)-alkyl, S-(C₂-C₆)-alkenyl, S-(C₂-C₆)-alkynyl, (C₃-C₇)-cycloalkyl, (C₃-C₇)-cycloalkyl-(C₁-C₄)-alkyl, where alkyl, alkenyl, alkynyl and cycloalkyl may be substituted one or more times by F, Cl, Br, SO-phenyl, SO₂-phenyl, where the phenyl ring may be substituted by F, Cl, Br or R₁₃, or OR₁₃, COOR₁₃, CON(R₁₄)(R₁₅), N(R₁₄)(R₁₅) or CO-heteroalkyl, O-SO-(C₁-C₆)-alkyl, O-SO₂-(C₁-C₆)-alkyl, O-SO₂-(C₆-C₁₀)-aryl, O-(C₆-C₁₀)-aryl, where aryl may be substituted up to twice by F, Cl, CN, OR₁₃, R₁₃, CF₃ or OCF₃, SO-(C₁-C₆)-alkyl, SO₂-(C₁-C₆)-alkyl, SO₂-(C₆-C₁₀)-aryl, where the phenyl ring may be substituted up to twice by F, Cl, Br, CN, OR₁₃, R₁₃, CF₃, OCF₃, COOR₁₃ or CON(R₁₄)(R₁₅), SO₂-N(R₁₄)(R₁₅), COOR₁₃, CO-heteroalkyl, N(R₁₄)(R₁₅) or heteroalkyl;

R₁₄, R₁₅ are, independently of one another, H, (C₁-C₆)-alkyl, where alkyl may be substituted by N(R₁₃)₂, (C₂-C₆)-alkenyl, (C₂-C₆)-alkynyl, (C₃-C₇)-cycloalkyl, (C₃-C₇)-cycloalkyl-(C₁-C₄)-alkyl, CO-(C₁-C₆)-alkyl, COO-(C₁-C₆)-alkyl, COO-(C₁-C₆)-alkylene-OCO-(C₁-C₆)-alkyl, CO-phenyl, COO-phenyl, COO-(C₁-C₆)-alkenyl-phenyl, OH, O-(C₁-C₆)-alkyl, O-(C₁-C₆)-alkenyl-phenyl or NH₂;

or the radicals R₁₄ and R₁₅ form with the nitrogen atom to which they are bonded a 3-7-membered, saturated heterocyclic ring which may comprise up to 3 heteroatoms selected from N, O or S, where the heterocyclic ring may be substituted up to three times by F, Cl, Br, OH, oxo, N(R₁₆)(R₁₇) or (C₁-C₄)-alkyl;

R₁₆, R₁₇ are, independently of one another, H, (C₁-C₆)-alkyl, where alkyl may be substituted by N(R₁₃)₂,

(C₂-C₆)-alkenyl, (C₂-C₆)-alkynyl, (C₃-C₇)-cycloalkyl, (C₃-C₇)-cycloalkyl-(C₁-C₄)-alkyl, CO-(C₁-C₆)-alkyl, COO-(C₁-C₆)-alkyl, COO-(C₁-C₆)-alkylene-OCO-(C₁-C₆)-alkyl, CO-phenyl, COO-phenyl, COO-(C₁-C₆)-alkenyl-phenyl, OH, O-(C₁-C₆)-alkyl, O-(C₁-C₆)-alkenyl-phenyl or NH₂;

heteroalkyl is a 3-7-membered, saturated or up to triunsaturated heterocyclic ring which may comprise up to 4 heteroatoms selected from N, O or S, where the heterocyclic ring may be substituted up to three times by F, Cl, Br, CN, oxo, (C₁-C₄)-alkyl, -COOR₁₃, (C₁-C₄)-alkylene-COOR₁₃, COOR₁₃, CON(R₁₄)(R₁₅), OR₁₃, N(R₁₄)(R₁₅) or phenyl, where phenyl may be substituted by COOR₁₃;

R₇ is H, (C₁-C₆)-alkyl, where alkyl may be substituted by OR₁₃ or N(R₁₄)(R₁₅), O-(C₁-C₆)-alkyl, CO-(C₁-C₆)-alkyl, (C₁-C₆)-alkylene-COOR₁₃, or COOR₁₃;

R₈ is N(R₁₈)(R₁₉) or OR₂₀;

or R₈ and R₄ together form the group -NH-CO-;

R₁₈, R₁₉ are, independently of one another, H, (C₁-C₁₀)-alkyl, (C₂-C₁₀)-alkenyl, (C₂-C₁₀)-alkynyl, (C₃-C₇)-cycloalkyl, (C₃-C₇)-cycloalkyl-(C₁-C₆)-alkyl, (C₆-C₁₀)-aryl, (C₆-C₁₀)-aryl-(C₁-C₄)-alkyl, (C₆-C₁₀)-aryl-(C₂-C₄)-alkenyl, (C₆-C₁₀)-aryl-(C₂-C₄)-alkynyl, heteroaryl, heteroaryl-(C₁-C₄)-alkyl, heteroaryl-(C₂-C₄)-alkenyl, heteroaryl-(C₂-C₄)-alkynyl, where alkyl, alkenyl, alkynyl and cycloalkyl may be substituted one or more times by F, Cl, CN, OR₁₃, R₁₃, CF₃, OCF₃, (C₆-C₁₀)-aryl, NH-C(=NR₁₄)-N(R₁₄)(R₁₅), N(R₁₄)(R₁₅), C(=NR₁₄)-N(R₁₄)(R₁₅), COOR₁₃ or CON(R₁₄)(R₁₅), and where aryl may be substituted more than once by F, Cl, CN, O-(C₁-C₆)-alkyl, O-(C₂-C₆)-alkenyl, (C₁-C₆)-alkyl, (C₂-C₆)-alkenyl, CO-(C₁-C₆)-alkyl, or CO-(C₂-C₆)-alkenyl, where alkyl and alkenyl may be substituted more than once by F, Cl, CH₃, OCH₃ or CN, NH-C(=NR₁₄)-N(R₁₄)(R₁₅), N(R₁₄)(R₁₅), C(=NR₁₄)-N(R₁₄)(R₁₅), COOR₁₃, CON(R₁₄)(R₁₅), O-phenyl, phenyl or pyridyl;

COOR13, CON-(R14)(R15), CO-heteroalkyl, CO-(C₆-C₁₀)-aryl or SO₂-(C₆-C₁₀)-aryl, where aryl may be substituted up to twice by F, Cl, CN, OH, (C₁-C₆)-alkyl, O-(C₁-C₆)-alkyl, CF₃, OCF₃, COOR13 or CON(R14)(R15);

or the radicals R18 and R19 form with the nitrogen atom to which they are bonded a 3-7-membered, saturated heterocyclic ring which may comprise up to 3 heteroatoms selected from the group of N, O or S, where the heterocyclic ring may be substituted up to three times by F, Cl, Br, OH, oxo, N(R16)(R17) or (C₁-C₄)-alkyl;

R20 is (C₁-C₁₀)-alkyl, (C₂-C₁₀)-alkenyl, (C₂-C₁₀)-alkynyl, (C₃-C₇)-cycloalkyl, (C₃-C₇)-cycloalkyl-(C₁-C₆)-alkyl, (C₆-C₁₀)-aryl, (C₆-C₁₀)-aryl-(C₁-C₄)-alkyl, (C₆-C₁₀)-aryl-(C₂-C₄)-alkenyl or (C₆-C₁₀)-aryl-(C₂-C₄)-alkynyl, where aryl may be substituted more than once by F, Cl, CN, O-(C₁-C₆)-alkyl, O-(C₂-C₆)-alkenyl, (C₁-C₆)-alkyl, (C₂-C₆)-alkenyl, CO-(C₁-C₆)-alkyl, CO-(C₂-C₆)-alkenyl, where alkyl and alkenyl may be substituted more than once by F, Cl, CH₃, OCH₃ or CN, NH-C(=NR14)-N(R14)(R15), N(R14)(R15), C(=NR14)-N(R14)(R15), COOR13, CON(R14)(R15), O-phenyl, phenyl or pyridyl, where phenyl may be substituted by F, Cl, CN or (C₁-C₆)-alkyl;

and their physiologically tolerated salts,

provided the radicals R6, R7, X, Y, and R8 do not have the following meanings at the same time:

R6 is H, Cl, CF₃, CH₃;

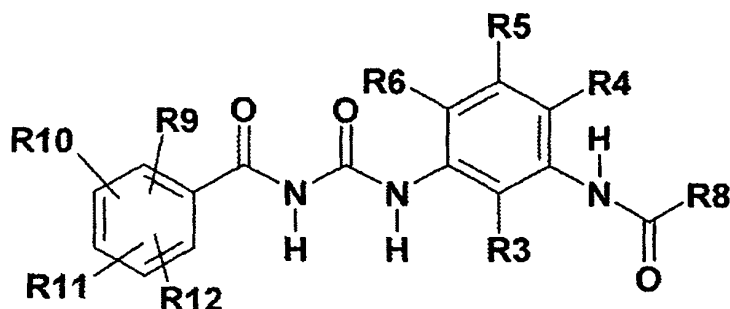
R7 is H;

X is O; and

Y is O, S;

R8 is substituted or unsubstituted NH-phenyl.

2. A compound of the formula I as claimed in claim 1, wherein said compound has the structure of compound Ia:



1a

wherein

R9 is F, Cl, Br, OH, CF₃, NO₂, CN, OCF₃, O-(C₁-C₆)-alkyl, O-(C₂-C₆)-alkenyl, O-(C₂-C₆)-alkynyl, O-SO₂-(C₁-C₄)-alkyl, O-SO₂-phenyl, where the phenyl ring may be substituted up to twice by F, Cl, Br, CN, OR₁₃, R₁₃, CF₃, OCF₃, COOR₁₃ or CON(R₁₄)(R₁₅), or S-(C₁-C₆)-alkyl, S-(C₂-C₆)-alkenyl, S-(C₂-C₆)-alkynyl, SO-(C₁-C₆)-alkyl, SO₂-(C₁-C₆)-alkyl, SO₂-NH₂, (C₁-C₆)-alkyl, (C₂-C₆)-alkenyl, (C₂-C₆)-alkynyl, (C₃-C₇)-cycloalkyl, (C₃-C₇)-cycloalkyl-(C₁-C₄)-alkyl, -COOR₁₃, (C₁-C₆)-alkylene-COOR₁₃, CON(R₁₄)(R₁₅), -N(R₁₄)(R₁₅), (C₁-C₆)-alkylene-N(R₁₄)(R₁₅), NH-COR₁₃, NH-CO-phenyl, NH-SO₂-phenyl or phenyl, where the phenyl ring may be substituted up to twice by F, Cl, Br, CN, OR₁₃, R₁₃, CF₃, OCF₃, COOR₁₃ or CON(R₁₄)(R₁₅);

R10, R11, R12 independently of one another are H, F, Cl, Br, OH, CF₃, NO₂, CN, OCF₃, O-(C₁-C₆)-alkyl, O-(C₂-C₆)-alkenyl, O-(C₂-C₆)-alkynyl, O-SO₂-(C₁-C₄)-alkyl, O-SO₂-phenyl, where the phenyl ring may be substituted up to twice by F, Cl, Br, CN, OR13, R13, CF₃, OCF₃, COOR13 or CON(R14)(R15), S-(C₁-C₆)-alkyl, S-(C₂-C₆)-alkenyl, S-(C₂-C₆)-alkynyl, SO-(C₁-C₆)-alkyl, SO₂-(C₁-C₆)-alkyl, SO₂-NH₂, (C₁-C₆)-alkyl, (C₂-C₆)-alkenyl, (C₂-C₆)-alkynyl, (C₃-C₇)-cycloalkyl, (C₃-C₇)-cycloalkyl-(C₁-C₄)-alkyl, -COOR13,

(C₁-C₆)-alkylene-COOR₁₃, COOR₁₃, CON(R₁₄)(R₁₅), -N(R₁₄)(R₁₅), (C₁-C₆)-alkylene-N(R₁₄)(R₁₅), C₁-C₆)-alkylene-N(R₁₄)(R₁₅), N(R₁₄)(R₁₅), NH-COR₁₃, NH-CO-phenyl, NH-SO₂-phenyl or phenyl, where the phenyl ring may be substituted up to twice by F, Cl, Br, CN, OR₁₃, R₁₃, CF₃, OCF₃, COOR₁₃ or CON(R₁₄)(R₁₅);

R₁₃ is H, (C₁-C₆)-alkyl, (C₂-C₆)-alkenyl, (C₂-C₆)-alkynyl, (C₃-C₇)-cycloalkyl or (C₃-C₇)-cycloalkyl-(C₁-C₄)-alkyl;

R₃, R₄, R₅, are independently of one another H, F, Cl, Br, OH, CF₃, NO₂, CN, OCF₃, (C₁-C₆)-alkyl, (C₂-C₆)-alkenyl, (C₂-C₆)-alkynyl, O-(C₁-C₁₀)-alkyl, O-(C₂-C₁₀)-alkenyl, O-(C₂-C₁₀)-alkynyl, S-(C₁-C₆)-alkyl, S-(C₂-C₆)-alkenyl, S-(C₂-C₆)-alkynyl, (C₃-C₇)-cycloalkyl, (C₃-C₇)-cycloalkyl-(C₁-C₄)-alkyl, where alkyl, alkenyl, alkynyl and cycloalkyl may be substituted more than once by F, Cl, Br, SO-phenyl, SO₂-phenyl, where the phenyl ring may be substituted by F, Cl, Br or R₁₃, or OR₁₃, COOR₁₃, CON(R₁₄)(R₁₅), N(R₁₄)(R₁₅) or CO-heteroalkyl, O-SO-(C₁-C₆)-alkyl, O-SO₂-(C₁-C₆)-alkyl, O-SO₂-(C₆-C₁₀)-aryl, O-(C₆-C₁₀)-aryl, where aryl may be substituted up to twice by F, Cl, CN, OR₁₃, R₁₃, CF₃ or OCF₃, SO-(C₁-C₆)-alkyl, SO₂-(C₁-C₆)-alkyl, SO₂-(C₆-C₁₀)-aryl, where the phenyl ring may be substituted up to twice by F, Cl, Br, CN, OR₁₃, R₁₃, CF₃, OCF₃, COOR₁₃ or CON(R₁₄)(R₁₅), SO₂-N(R₁₄)(R₁₅), COOR₁₃, CO-heteroalkyl, N(R₁₄)(R₁₅) or heteroalkyl;

R₆ is F, Cl, Br, OH, CF₃, NO₂, CN, OCF₃, (C₁-C₆)-alkyl, (C₂-C₆)-alkenyl, (C₂-C₆)-alkynyl, O-(C₁-C₁₀)-alkyl, O-(C₂-C₁₀)-alkenyl, O-(C₂-C₁₀)-alkynyl, S-(C₁-C₆)-alkyl, S-(C₂-C₆)-alkenyl, S-(C₂-C₆)-alkynyl, (C₃-C₇)-cycloalkyl, (C₃-C₇)-cycloalkyl-(C₁-C₄)-alkyl, where alkyl, alkenyl, alkynyl and cycloalkyl may be substituted more than once by F, Cl, Br, SO-phenyl, SO₂-phenyl, where the phenyl ring may be substituted by F, Cl, Br or R₁₃, or OR₁₃, COOR₁₃, CON(R₁₄)(R₁₅), N(R₁₄)(R₁₅) or CO-heteroalkyl, or O-SO-(C₁-C₆)-alkyl, O-SO₂-(C₁-C₆)-alkyl, O-SO₂-(C₆-C₁₀)-aryl, O-(C₆-C₁₀)-aryl, where aryl may be substituted up to twice by

F, Cl, CN, OR13, R13, CF₃ or OCF₃, or SO-(C₁-C₆)-alkyl, SO₂-(C₁-C₆)-alkyl, SO₂-(C₆-C₁₀)-aryl, where the phenyl ring may be substituted up to twice by F, Cl, Br, CN, OR13, R13, CF₃, OCF₃, COOR13 or CON(R14)(R15), or SO₂-N(R14)(R15), COOR13, CO-heteroalkyl, N(R14)(R15) or heteroalkyl;

R14, R15 independently of one another are H, (C₁-C₆)-alkyl, where alkyl may be substituted by N(R13)₂,

(C₂-C₆)-alkenyl, (C₂-C₆)-alkynyl, (C₃-C₇)-cycloalkyl, (C₃-C₇)-cycloalkyl-(C₁-C₄)-alkyl, CO-(C₁-C₆)-alkyl, COO-(C₁-C₆)-alkyl, COO-(C₁-C₆)-alkylene-OCO-(C₁-C₆)-alkyl, CO-phenyl, COO-phenyl, COO-(C₁-C₆)-alkenyl-phenyl, OH, O-(C₁-C₆)-alkyl, O-(C₁-C₆)-alkenyl-phenyl or NH₂;

or the radicals R14 and R15 form with the nitrogen atom to which they are bonded a 3-7-membered, saturated heterocyclic ring which may comprise up to 3 heteroatoms selected from the group of N, O or S, where the heterocyclic ring may be substituted up to three times by F, Cl, Br, OH, oxo, N(R16)(R17) or (C₁-C₄)-alkyl;

R16, R17 independently of one another are H, (C₁-C₆)-alkyl, where alkyl may be substituted by N(R13)₂,

(C₂-C₆)-alkenyl, (C₂-C₆)-alkynyl, (C₃-C₇)-cycloalkyl, (C₃-C₇)-cycloalkyl-(C₁-C₄)-alkyl, CO-(C₁-C₆)-alkyl, COO-(C₁-C₆)-alkyl, COO-(C₁-C₆)-alkylene-OCO-(C₁-C₆)-alkyl, CO-phenyl, COO-phenyl, COO-(C₁-C₆)-alkenyl-phenyl, OH, O-(C₁-C₆)-alkyl, O-(C₁-C₆)-alkenyl-phenyl or NH₂;

heteroalkyl is a 3-7-membered, saturated or up to triunsaturated heterocyclic ring which may comprise up to 4 heteroatoms selected from N, O or S, where the heterocyclic ring may be substituted up to three times by F, Cl, Br, CN, oxo, (C₁-C₄)-alkyl, -COOR13, (C₁-C₄)-alkylene-COOR13, COOR13, CON(R14)(R15), OR13 or N(R14)(R15) or phenyl, where phenyl may be substituted by COOR13;

R8 is N(R18)(R19) or OR20;

or R8 and R4 together form the group -NH-CO-;

R18, R19 independently of one another are H, (C₁-C₁₀)-alkyl, (C₂-C₁₀)-alkenyl, (C₂-C₁₀)-alkynyl, (C₃-C₇)-cycloalkyl, (C₃-C₇)-cycloalkyl-(C₁-C₆)-alkyl, (C₆-C₁₀)-aryl, (C₆-C₁₀)-aryl-(C₁-C₄)-alkyl, (C₆-C₁₀)-aryl-(C₂-C₄)-alkenyl, (C₆-C₁₀)-aryl-(C₂-C₄)-alkynyl, heteroaryl, heteroaryl-(C₁-C₄)-alkyl, heteroaryl-(C₂-C₄)-alkenyl, heteroaryl-(C₂-C₄)-alkynyl, where alkyl, alkenyl, alkynyl and cycloalkyl may be substituted more than once by F, Cl, CN, OR₁₃, R₁₃, CF₃, OCF₃, (C₆-C₁₀)-aryl, NH-C(=NR₁₄)-N(R₁₄)(R₁₅), N(R₁₄)(R₁₅), C(=NR₁₄)-N(R₁₄)(R₁₅), COOR₁₃ or CON(R₁₄)(R₁₅), and where aryl may be substituted more than once by F, Cl, CN, O-(C₁-C₆)-alkyl, O-(C₂-C₆)-alkenyl, (C₁-C₆)-alkyl, (C₂-C₆)-alkenyl, CO-(C₁-C₆)-alkyl, CO-(C₂-C₆)-alkenyl, where alkyl and alkenyl may be substituted more than once by F, Cl, CH₃, OCH₃ or CN, or NH-C(=NR₁₄)-N(R₁₄)(R₁₅), N(R₁₄)(R₁₅), C(=NR₁₄)-N(R₁₄)(R₁₅), COOR₁₃, CON(R₁₄)(R₁₅), O-phenyl, phenyl or pyridyl; COOR₁₃, CON-(R₁₄)(R₁₅), CO-heteroalkyl, CO-(C₆-C₁₀)-aryl or SO₂-(C₆-C₁₀)-aryl, where aryl may be substituted up to twice by F, Cl, CN, OH, (C₁-C₆)-alkyl, O-(C₁-C₆)-alkyl, CF₃, OCF₃, COOR₁₃ or CON(R₁₄)(R₁₅);

or the radicals R18 and R19 form together with the nitrogen atom to which they are bonded a 3-7-membered, saturated heterocyclic ring which may comprise up to 3 heteroatoms selected from the group of N, O or S, where the heterocyclic ring may be substituted up to three times by F, Cl, Br, OH, oxo, N(R₁₆)(R₁₇) or (C₁-C₄)-alkyl;

R20 is (C₁-C₁₀)-alkyl, (C₂-C₁₀)-alkenyl, (C₂-C₁₀)-alkynyl, (C₃-C₇)-cycloalkyl, (C₃-C₇)-cycloalkyl-(C₁-C₆)-alkyl, (C₆-C₁₀)-aryl, (C₆-C₁₀)-aryl-(C₁-C₄)-alkyl, (C₆-C₁₀)-aryl-(C₂-C₄)-alkenyl or (C₆-C₁₀)-aryl-(C₂-C₄)-alkynyl, where aryl may be substituted more than once by F, Cl, CN, O-(C₁-C₆)-alkyl, O-(C₂-C₆)-alkenyl, (C₁-C₆)-alkyl, (C₂-C₆)-alkenyl, CO-(C₁-C₆)-alkyl, CO-(C₂-C₆)-alkenyl, where alkyl and alkenyl may be substituted more than once by F, Cl, CH₃, OCH₃ or CN, or NH-C(=NR₁₄)-N(R₁₄)(R₁₅), N(R₁₄)(R₁₅), C(=NR₁₄)-N(R₁₄)(R₁₅), COOR₁₃, CON(R₁₄)(R₁₅),

O-phenyl, phenyl or pyridyl, where phenyl may be substituted by F, Cl, CN or (C₁-C₆)-alkyl;

and their physiologically tolerated salts,

provided the radical R₈ is not phenyl.

3. A compound of the formula Ia as claimed in claim 2, wherein

R₉, R₁₀, R₁₁ independently of one another are F or Cl;

R₁₂ is H;

R₁₃ is H, (C₁-C₆)-alkyl, (C₂-C₆)-alkenyl, (C₂-C₆)-alkynyl, (C₃-C₇)-cycloalkyl or (C₃-C₇)-cycloalkyl-(C₁-C₄)-alkyl;

R₆ is F, Cl, CF₃, OCF₃, (C₁-C₆)-alkyl, (C₂-C₆)-alkenyl, (C₂-C₆)-alkynyl, O-(C₁-C₁₀)-alkyl, O-(C₂-C₁₀)-alkenyl, O-(C₂-C₁₀)-alkynyl, (C₃-C₇)-cycloalkyl, (C₃-C₇)-cycloalkyl-(C₁-C₄)-alkyl, N(R₁₄)(R₁₅) or Cl; heteroalkyl, where alkyl, alkenyl, alkynyl and cycloalkyl may be substituted more than once by F, COOR₁₃, CON(R₁₄)(R₁₅) or N(R₁₄)(R₁₅);

R₁₄, R₁₅ are independently of one another H, (C₁-C₆)-alkyl, where alkyl may be substituted by N(R₁₃)₂;

heteroalkyl is a 3-7-membered, saturated or up to triunsaturated heterocyclic ring which may comprise up to 4 heteroatoms which correspond to N, O or S, where the heterocyclic ring may be substituted up to three times by F, Cl, Br, CN, oxo, (C₁-C₄)-alkyl, -COOR₁₃, (C₁-C₄)-alkylene-COOR₁₃, CON(R₁₄)(R₁₅), OR₁₃ or N(R₁₄)(R₁₅) or phenyl, where phenyl may be substituted by COOR₁₃;

R₈ is N(R₁₈)(R₁₉) or OR₂₀;

or R₈ and R₄ together form the group -NH-CO-;

R₁₈, R₁₉ are independently of one another H, (C₁-C₁₀)-alkyl, (C₂-C₁₀)-alkenyl, (C₂-C₁₀)-alkynyl, (C₃-C₇)-cycloalkyl, (C₃-C₇)-cycloalkyl-(C₁-C₆)-alkyl, (C₆-C₁₀)-

aryl, (C₆-C₁₀)-aryl-(C₁-C₄)-alkyl, (C₆-C₁₀)-aryl-(C₂-C₄)-alkenyl, (C₆-C₁₀)-aryl-(C₂-C₄)-alkynyl, heteroaryl, heteroaryl-(C₁-C₄)-alkyl, heteroaryl-(C₂-C₄)-alkenyl, heteroaryl-(C₂-C₄)-alkynyl, where alkyl, alkenyl, alkynyl and cycloalkyl may be substituted more than once by F, Cl, CN, OR₁₃, R₁₃, CF₃, OCF₃, (C₆-C₁₀)-aryl, NH-C(=NR₁₄)-N(R₁₄)(R₁₅), N(R₁₄)(R₁₅), C(=NR₁₄)-N(R₁₄)(R₁₅), COOR₁₃ or CON(R₁₄)(R₁₅), and where aryl may be substituted more than once by F, Cl, CN, O-(C₁-C₆)-alkyl, O-(C₂-C₆)-alkenyl, (C₁-C₆)-alkyl, (C₂-C₆)-alkenyl, CO-(C₁-C₆)-alkyl, CO-(C₂-C₆)-alkenyl, where alkyl and alkenyl may be substituted more than once by F, Cl, CH₃, OCH₃ or CN, or NH-C(=NR₁₄)-N(R₁₄)(R₁₅), N(R₁₄)(R₁₅), C(=NR₁₄)-N(R₁₄)(R₁₅), COOR₁₃, CON(R₁₄)(R₁₅), O-phenyl, phenyl or pyridyl; COOR₁₃, CON(R₁₄)(R₁₅), CO-heteroalkyl, CO-(C₆-C₁₀)-aryl or SO₂-(C₆-C₁₀)-aryl, where aryl may be substituted up to twice by F, Cl, CN, OH, (C₁-C₆)-alkyl, O-(C₁-C₆)-alkyl, CF₃, OCF₃, COOR₁₃ or CON(R₁₄)(R₁₅);

or the radicals R₁₈ and R₁₉ form together with the nitrogen atom to which they are bonded a 3-7-membered, saturated heterocyclic ring which may comprise up to 2 further heteroatoms from the group of N, O or S, where the heterocyclic ring may be substituted up to three times by F, Cl, Br, OH, oxo, N(R₁₆)(R₁₇) or (C₁-C₄)-alkyl;

R₂₀ is (C₁-C₁₀)-alkyl, (C₂-C₁₀)-alkenyl, (C₂-C₁₀)-alkynyl, (C₃-C₇)-cycloalkyl, (C₃-C₇)-cycloalkyl-(C₁-C₆)-alkyl, (C₆-C₁₀)-aryl, (C₆-C₁₀)-aryl-(C₁-C₄)-alkyl, (C₆-C₁₀)-aryl-(C₂-C₄)-alkenyl or (C₆-C₁₀)-aryl-(C₂-C₄)-alkynyl, where aryl may be substituted more than once by F, Cl, CN, or O-(C₁-C₆)-alkyl.

4. A pharmaceutical composition comprising one or more of the compounds as claimed in claim 1.

5. A pharmaceutical composition comprising one or more of the compounds as claimed in claim 1 and at least one other active ingredient.

6. A pharmaceutical composition as claimed in claim 5, wherein the other active ingredient comprises one or more antidiabetics, hypoglycemic active ingredients,

HMG-CoA reductase inhibitors, cholesterol absorption inhibitors, PPAR gamma agonists, PPAR alpha agonists, PPAR alpha/gamma agonists, fibrates, MTP inhibitors, bile acid absorption inhibitors, CETP inhibitors, polymeric bile acid adsorbents, LDL receptor inducers, ACAT inhibitors, antioxidants, lipoprotein lipase inhibitors, ATP-citrate lyase inhibitors, squalene synthetase inhibitors, lipoprotein(a) antagonists, lipase inhibitors, insulins, sulfonylureas, biguanides, meglitinides, thiazolidinediones, α -glucosidase inhibitors, active ingredients which act on the ATP-dependent potassium channel of the beta cells, CART agonists, NPY agonists, MC4 agonists, orexin agonists, H3 agonists, TNF agonists, CRF agonists, CRF BP antagonists, urocortin agonists, β 3 agonists, MSH (melanocyte-stimulating hormone) agonists, CCK agonists, serotonin reuptake inhibitors, mixed serotonergic and noradrenergic compounds, 5HT agonists, bombesin agonists, galanin antagonists, growth hormones, growth hormone-releasing compounds, TRH agonists, decoupling protein 2 or 3 modulators, leptin agonists, DA agonists (bromocriptine, Doprexin), lipase/amylase inhibitors, PPAR modulators, RXR modulators or TR- β agonists or amphetamines.

7. A process for producing a pharmaceutical composition comprising mixing one or more of the compounds as claimed in claim 1 with an active ingredient and a pharmaceutically suitable carrier and converting this mixture into a form suitable for administration.

8. A method for reducing blood glucose, comprising administering to a subject in need thereof, one or more compounds claimed in claim 1.

9. A method for treating type 2 diabetes, comprising administering to a subject in need thereof, one or more compounds claimed in claim 1.

10. A method for treating disturbances of lipid and carbohydrate metabolism, comprising administering to a subject in need thereof, one or more compounds claimed in claim 1.

11. A method for treating arteriosclerotic manifestations, comprising administering to a subject in need thereof, one or more compounds claimed in claim 1.

12. A method for treating insulin resistance, comprising administering to a subject in need thereof, one or more compounds claimed in claim 1.